DoD Software Issues and Gap Identification

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Key Events - 2007

- Published DoD Software Summit Report
- Held DoD Software Interchange meeting
  - Confirmed Software Exec/Staff POCs across the DoD
  - Reviewed Top Software Issues
  - Agreed to prioritize issues, identify gaps for attention
  - Identified three communities of interest:
    - Embedded (weapons systems)
    - IT
    - Business
- Navy Software presentation to SE Forum, Feb 07
  - OSD/Navy agreed to coordinate/leverage Navy and Tri-service activities
- Hosted software workshop, 21 March
  - “Embedded software community” focus
  - Reviewed ongoing initiatives, identified gaps

This briefing provides workshop summary and next steps

Software Issue/Gap Identification Process

1. Consolidated findings/recommendations from Top Software Issues Workshop, Program Support Reviews, and DoD Software Summit
   - Identified 6 major focus areas
   - Identified key recommendations for each area
2. Developed Survey to map ongoing software initiatives against the recommendations
   - Services, MDA DCMA, SEI, L&MR, DAU, DDRE completed survey
3. Held software working group session – 21 March 07
   - Reviewed Survey Results, Component Briefings
   - Determined high level focus areas for attention (next chart)
   - Binned activities against each area
   - Identified areas where no activity existed (gaps)

SW Issue/GAP Workshop Findings

*based on NDIA Top SW Issues, OSD Program Support Reviews, and DoD Software Summit findings

Primary Software Focus Areas*

Software Acquisition Management

Standards – O, N
DAG Ch 4/7 – O, AF
Prog Spt – O, All
Contract Language – A, M, N
SW Estimation – GAP
Lifecycle Policy – AF
Risk Identification - GAP

Software Development Techniques

Agile – O, SEI
Architecture – A, SEI
COTS – SEI
Open Source – AF
Sustainment – GAP
SW Interoperability – GAP
SW Test - GAP

SW & SE Integration

Requirements – GAP
SE/SW Process Int – O
SW Council – N
SW Dev Plan – N
SW in SEP – N
SW in Tech Reviews – N
SW Quality Attributes - GAP

Knowledge Sharing

DAU Software ACC – DAU
Best Practices Clearinghouse – DAU, O
SW Inventory – LMR
Lifecycle Guides – M, N
Root Cause Analysis – O
Local Knowledge Portals - N

Data and Metrics

SW Metrics – A, O
SW Cost – O
SW EVM – DCMA
SW Estimation - GAP

Human Capital

Education Sources – N, A
Leadership Training – A, SEI
SETA Quals – GAP
SW Human Cap Strategy – GAP
Industrial Base – O
University Curriculum – O
Workforce Survey - AF

Ongoing Initiative Owners
O – OSD/SSA
A – Army
N – Navy
AF – Air Force
M – MDA
SEI
DCMA
DAU
L&MR
GAP – No activity

Ongoing SW Initiatives (w/owners) and Gaps binned to Focus Areas

Summary of Identified Software Gap Areas

- Estimation
- Risk Identification
- Sustainment
- Interoperability
- Test
- Requirements
- Quality Attributes
- SETA Qualifications
- Human Capital Strategy

Next Steps

Near Term:

- Determine metrics for each of the 6 Focus Areas
  - Based upon source reports (ie. SW Summit, Top Issues, PSRs, Historical SW Studies)
- Coordinate ongoing initiatives (via Working Group Participation, Defense Software Collaborators)
  - Support and/or leverage initiatives where appropriate
  - Provide visibility across the Department
- Determine action plans for each gap based upon:
  - Priority
  - Near Term/Long Term impacts
  - NDIA SW Committee, others, interest in accepting gap(s)
- Engage other communities and participants
  - IT, Business, Research

Over Time:

- Reassess ongoing initiatives against focus area metrics
  - Determine new gaps, or additional effort required to address core issues
- Reassess focus area metrics against systemic software issues
  - From future SW Summits, Systemic Analysis, etc…

Notional Oversight/Coordination